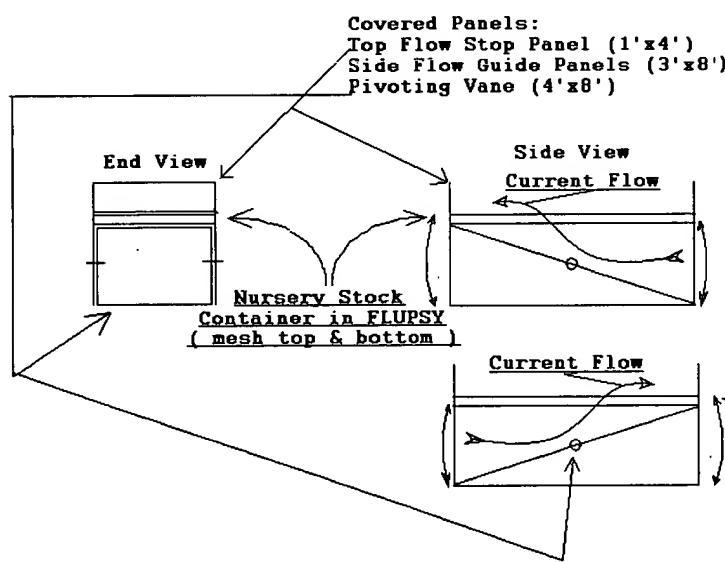




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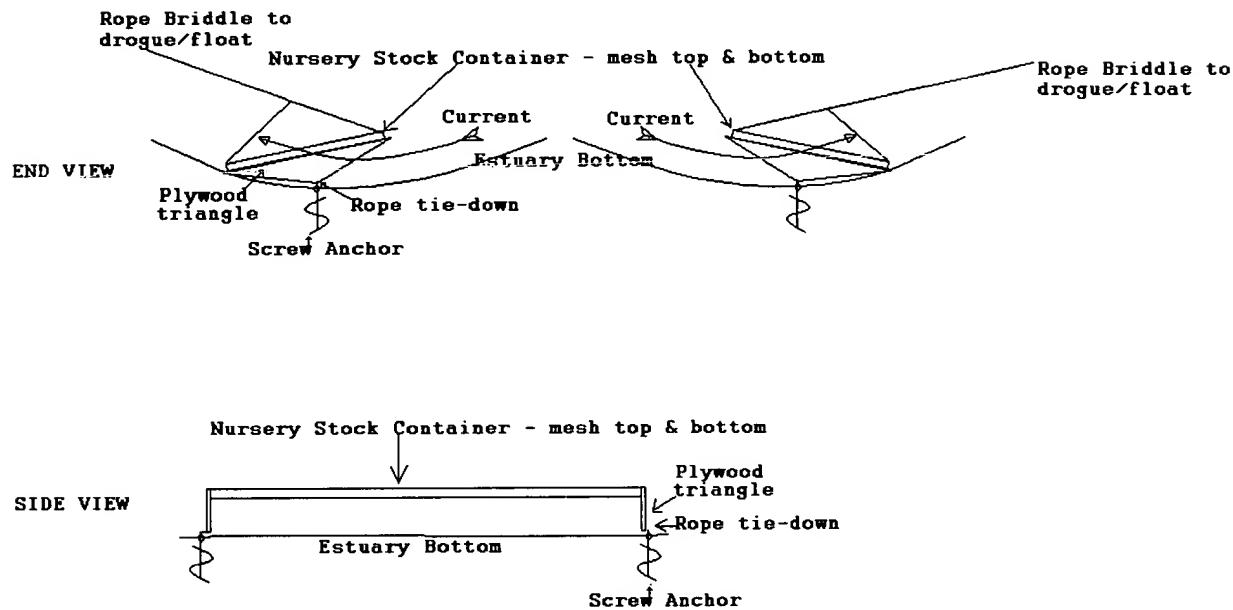
FIG. 1 – FLUPSY (Floating Upweller System)





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FIG. 2 – BUPSY (Bottom Upweller System)





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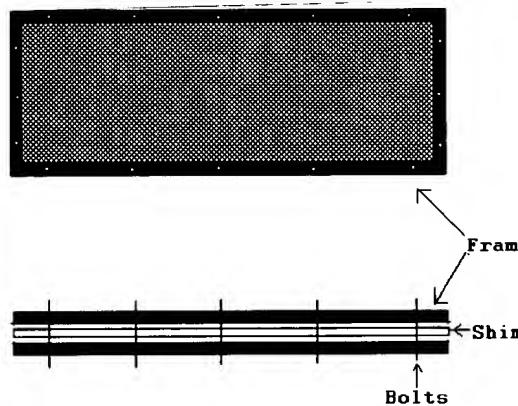
FIG. 3 - Nursery Stock Container

Provisional Patent Application

TOP VIEW - Two ridged frames, each covered with mesh (sized to retain shellfish), bolted together.

The frames are separated with a combination of ridged and compressible (closed cell foam) shims so that the shellfish are gently but securely held by the assembly.

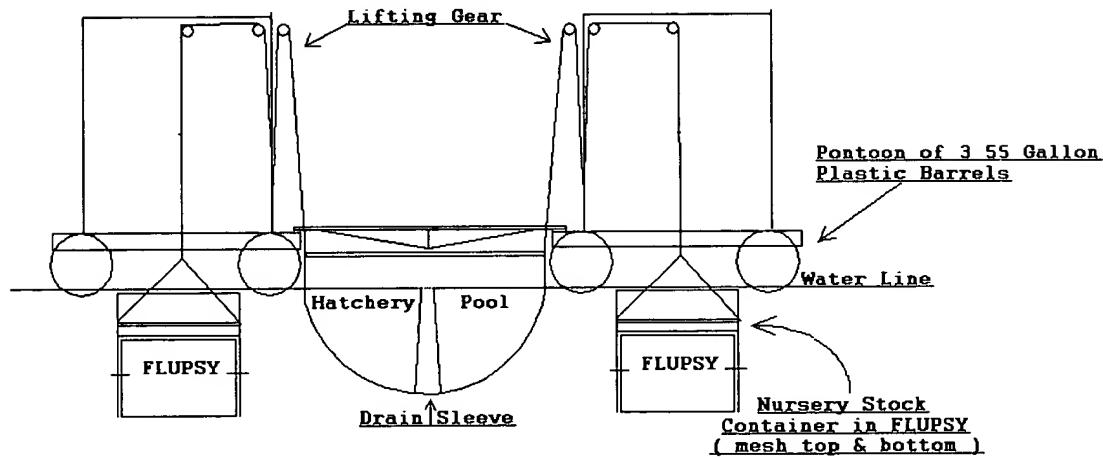
SIDE VIEW





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FIG. 4 - End View of
Spawntoon

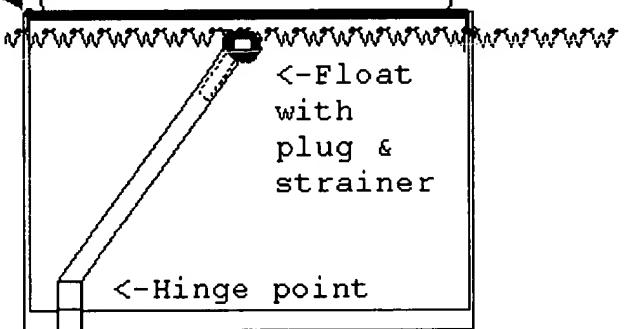




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FIG. 5 – Drain Device for floating hatchery live-well

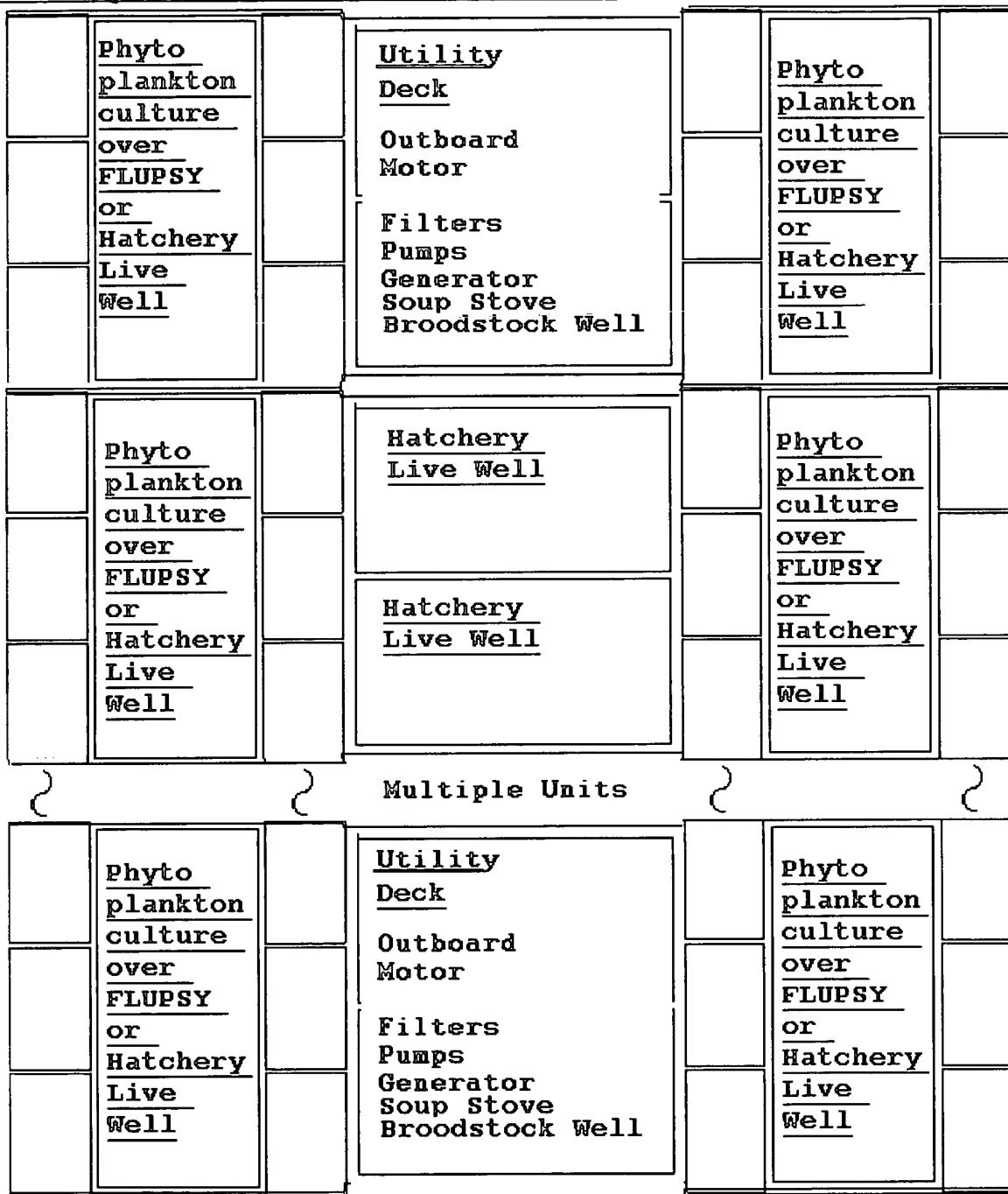
Hatchery Live-Well
Filled with filtered water
for spawn. The drain device
is plugged. The ridged frame
of the Hatchery Pool is either
held above the water by ropes
or supported by the floatation
of the live-well itself.





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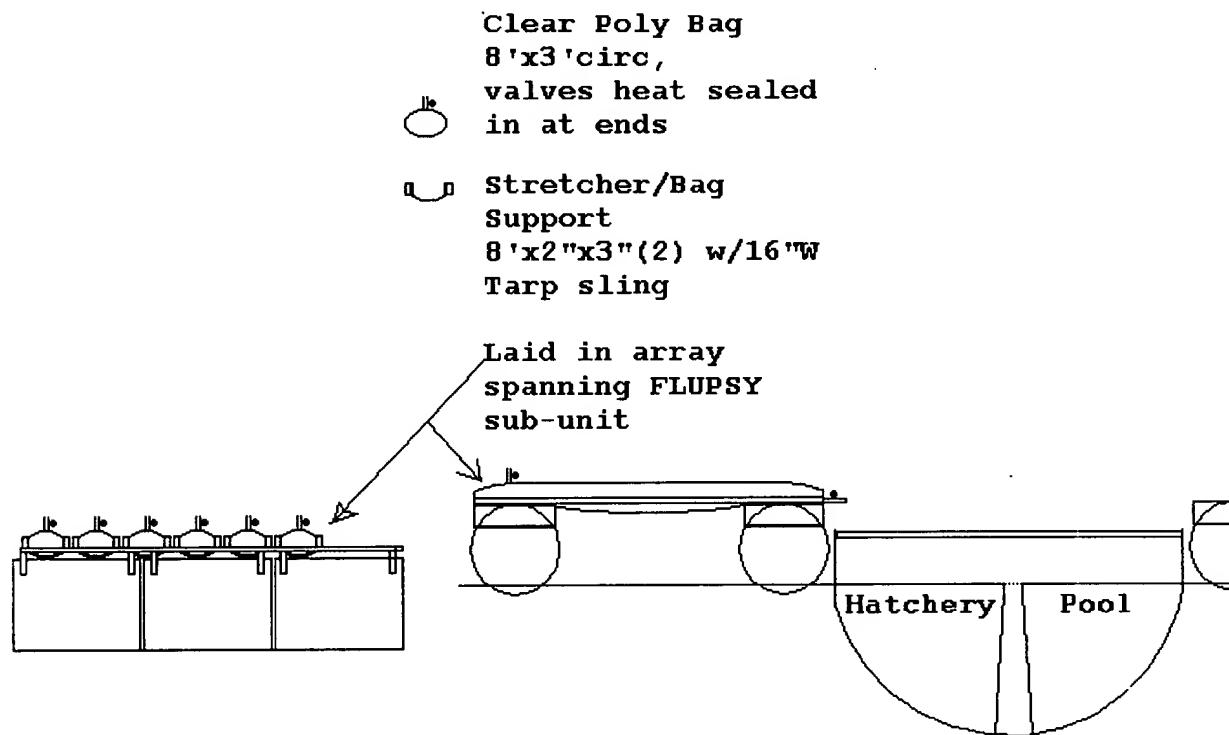
FIG. 6 – SpawnToon Motorboat "The Mama Cass Ostrea"





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FIG. 7 – Phytoplankton Culture: Culture Bag w/fittings, Stretcher resting on two pontoons





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FIG. 8 – Hatchery Live Well Drain-Sleeve and Spawn Catcher

Figure 8A) Hatchery Pool filled with filtered water for spawn. The drain device is plugged. The ridged frame of the Hatchery Pool is held above the water by ropes.

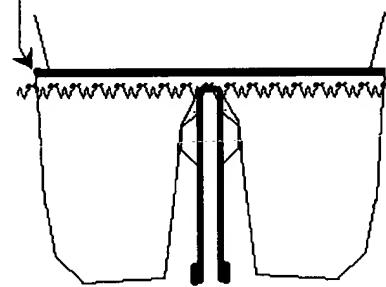


Figure 8B) Hatchery Pool being drained. The plug is replaced with the Spawn Catcher assembly. The lifting ropes are weighted with buckets of water so that the pull on the lines will cause the water to drain through the Spawn Catcher. The drain sleeve accordions down so the drain opening remains just under the surface of the water.

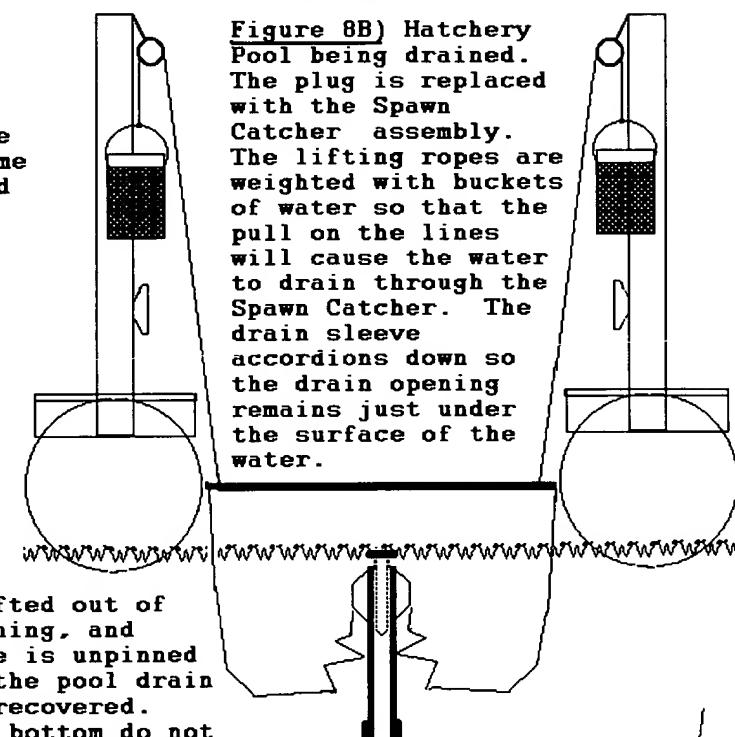


Figure 8D) Hatchery Pool lifted out of the water for cleaning, sunning, and maintenance. The drain pipe is unpinned from the collar affixed to the pool drain sleeve so the spawn can be recovered. Dead spawn and feces on the bottom do not drain out until the drain pipe and Spawn Catcher assembly are unpinned and removed. The spawn are rinsed out into a filled pool waiting for them.

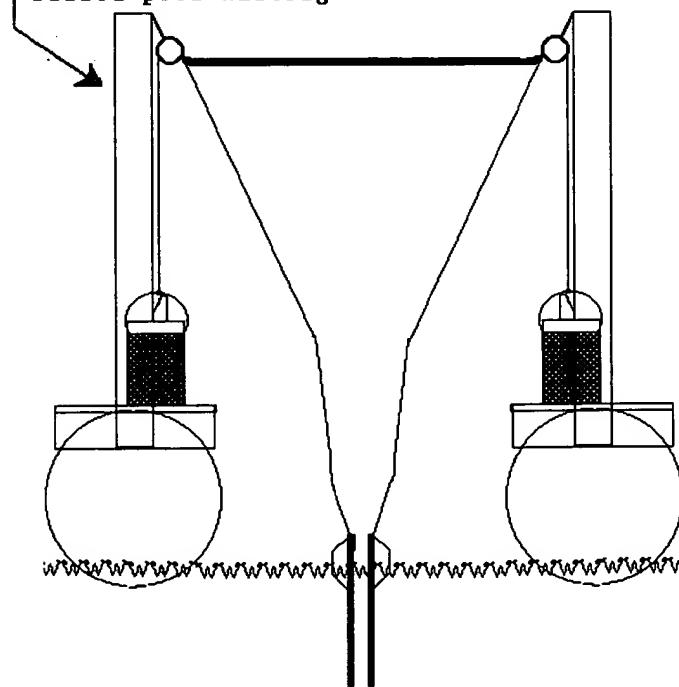
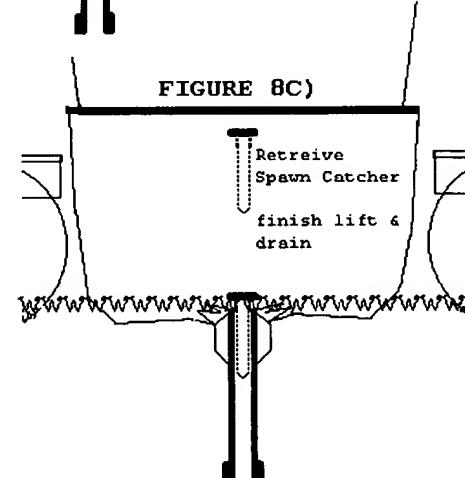


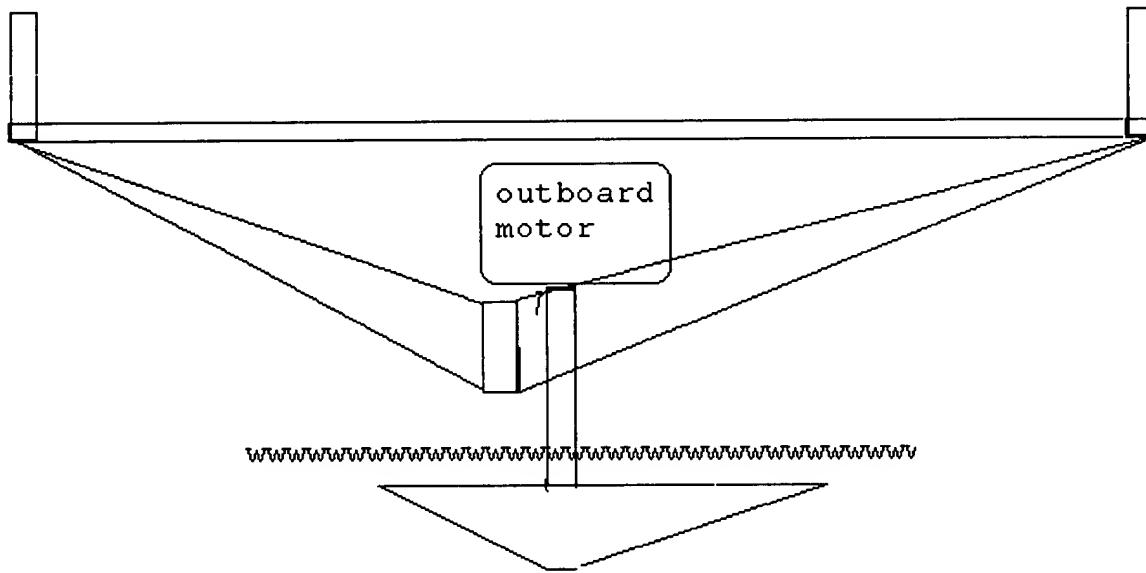
FIGURE 8C)





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FIG. 9 - Outboard Motor Mount (with DAVIS NOZZLE) slung underneath SpawnToon deck,
Profile of the Tubular Shroud surrounding the propeller and bolted to the cavitation plate

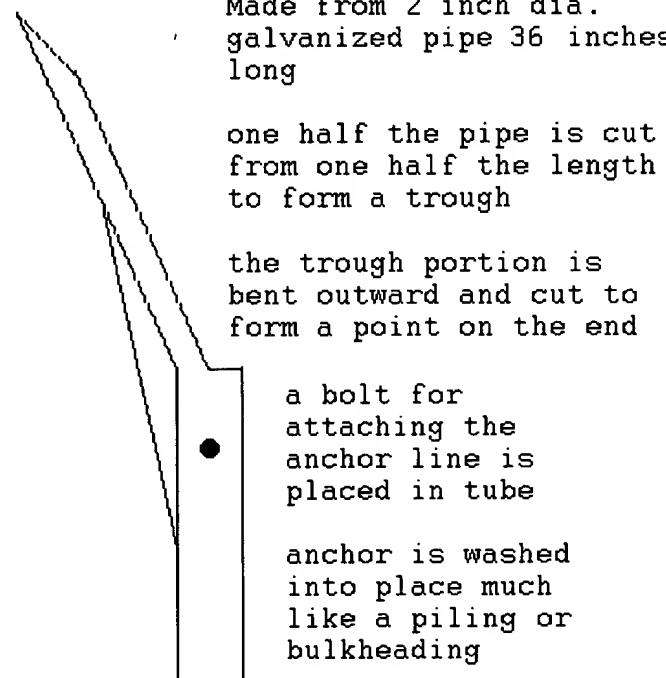




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FIG. 10 - Davis Harpoon anchor

Figure 10) DAVIS HARPOON ANCHOR





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Figure 11 A) TWWELLER : side view

Two Way Upweller/Downweller Shellfish Growing Device

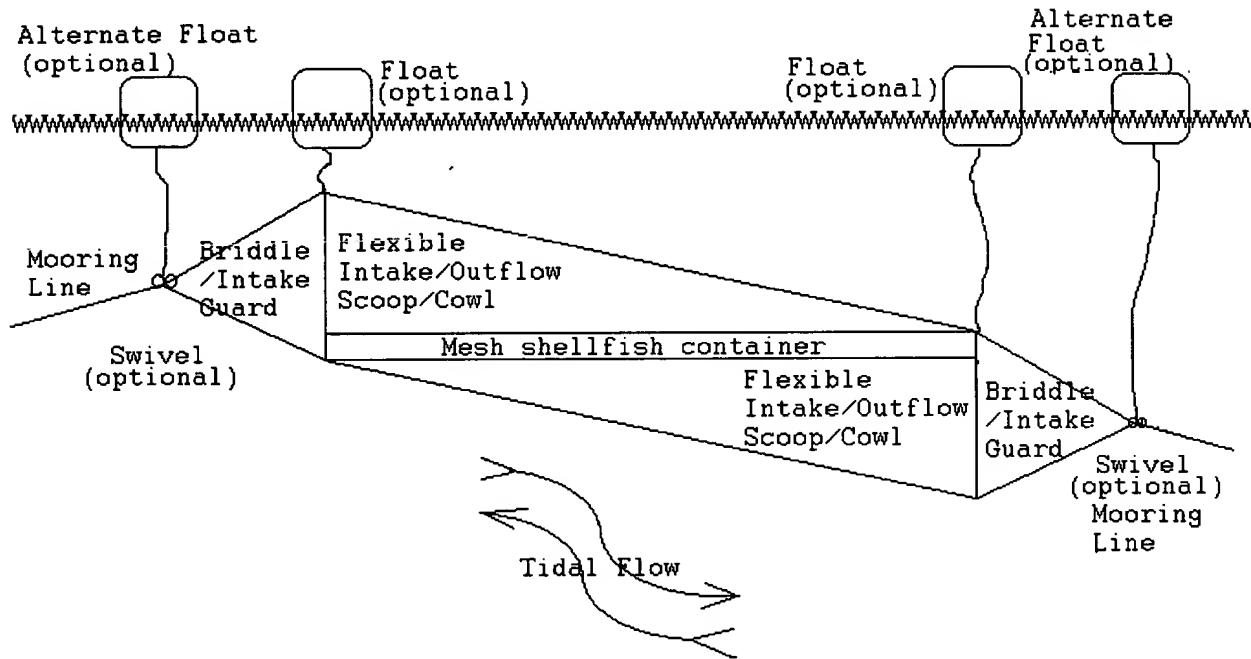


FIGURE 11 B) TWWELLER: end view

Rotating Option
on swiveled mooring

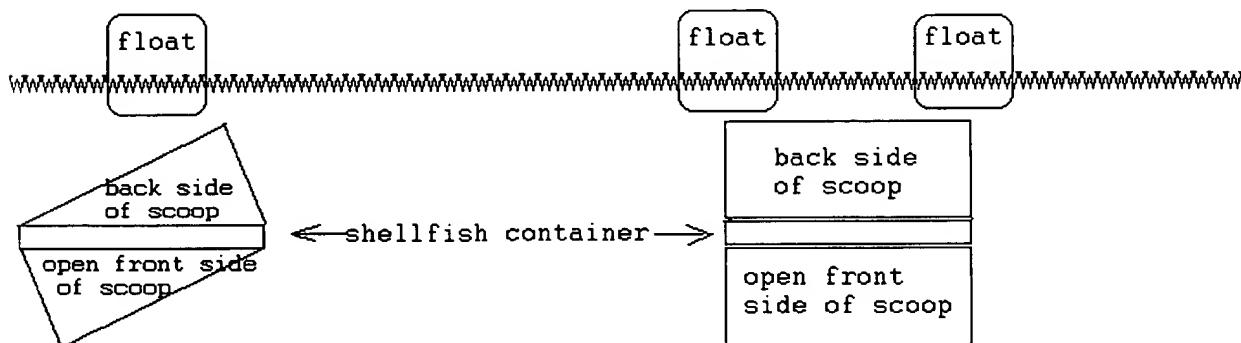


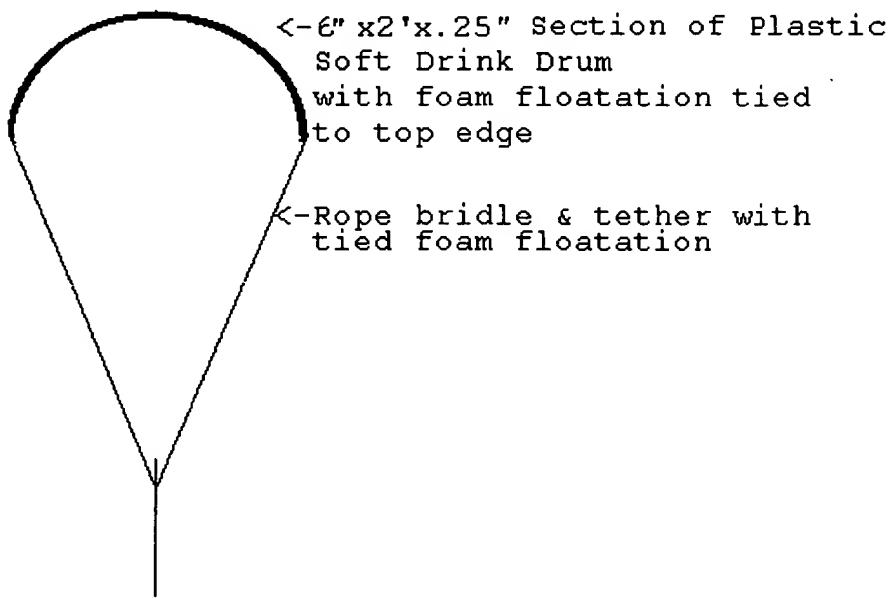
FIG. 11 - TWWELLER



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FIG. 12 – Float-Drogue

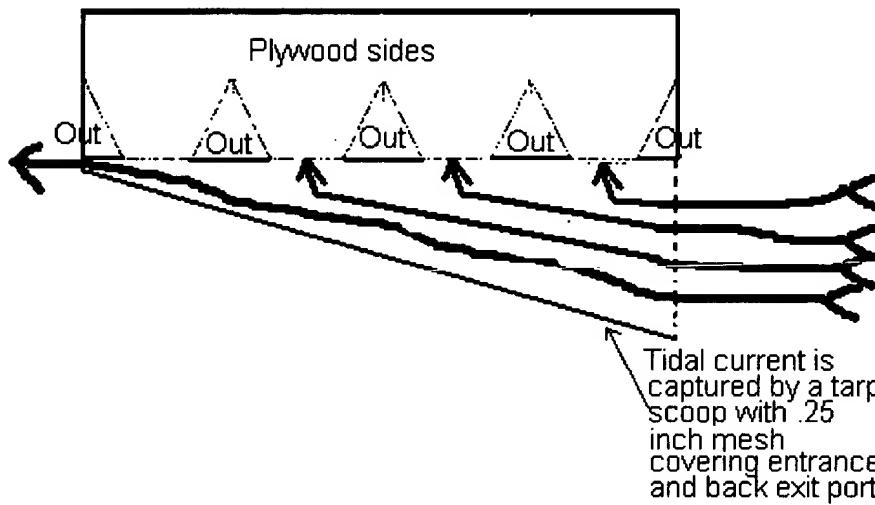
Figure 12) Float-Drogue





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FIG. 13 Grounding Tolerant FLUPSY scoop of CLAIM 9 servicing a crenellated Marsupium.
Side View

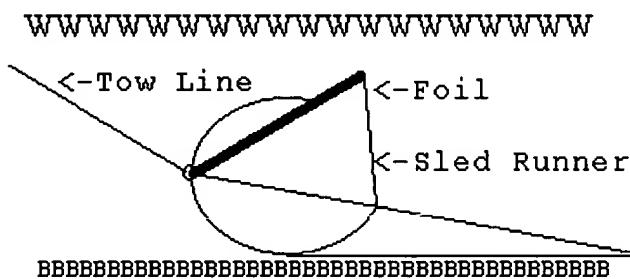


Water out through triangular ports in the side
after passing through a 38 micron mesh crenellation panel
Plywood panel separates inbound water from outbound
water in the crenellation



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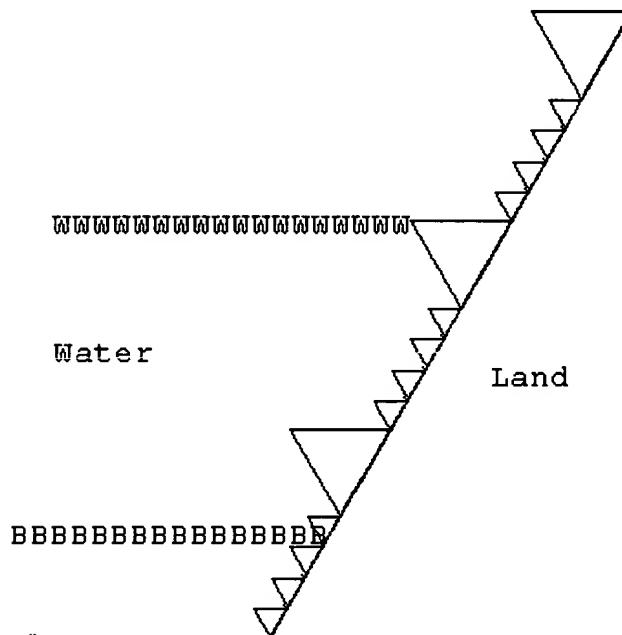
FIG. 14 – Resuspension Drag Foil of CLAIM 17





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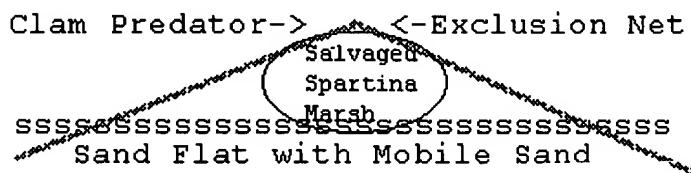
FIG. 15 – Waffle Bulkhead





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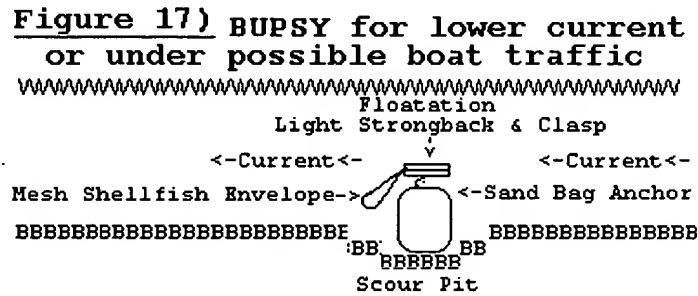
FIG. 16 – Shellfish Geostructure of CLAIM 11





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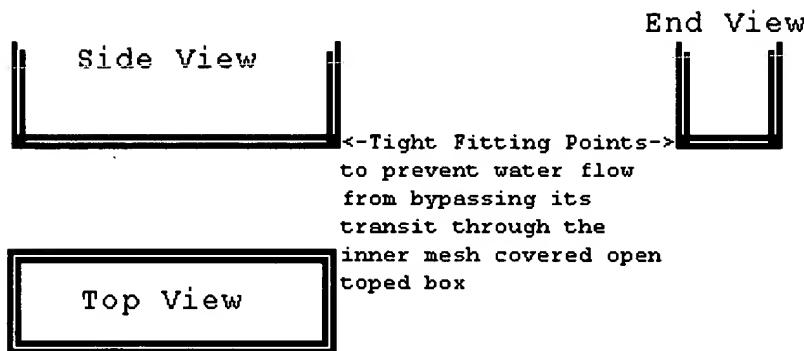
FIG. 17 – BUPSY of CLAIM 8 (for low current or under possible boat traffic)





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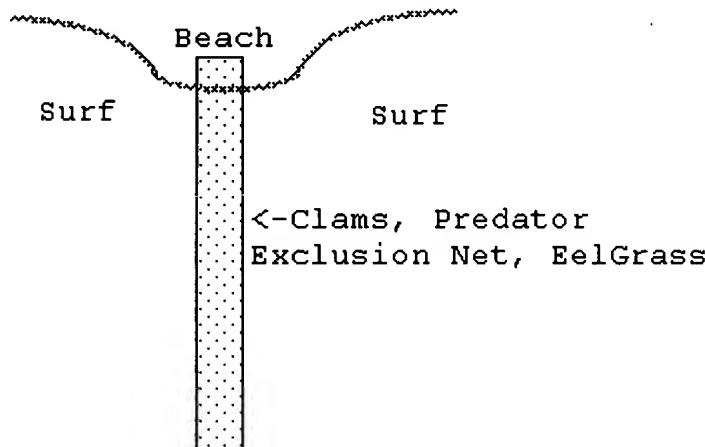
FIG. 18 – Shellfish Hatchery-Nursery Container of CLAIM 16: Set of two nested open top
Self Cleaning screen set of CLAIM 7 used by the Marsupium





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FIG. 19 – Shellfish:SAV Polyculture Groin and Breakwater Substitute of CLAIM 18





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FIG. 20 Foil Array of CLAIM 10 used for current powered directional sediment Transport

